Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-28. (Cancelled)

Claim 29. (Currently Amended): A method for treating or alleviating symptoms of an autoimmune disease in a patient having or suffering an autoimmune disease, comprising:

depleting T cells in the patient; and

reactivating the thymus of the patient,

wherein the patient has an improved prognosis for the autoimmune disease compared to an untreated patient suffering from the autoimmune disease.

Claim 30. (Previously Presented): The method of claim 29, wherein the thymus of the patient has been at least in part atrophied before it is reactivated.

Claim 31. (Previously Presented): The method of claim 29, wherein the thymus is reactivated by disruption of sex steroid-mediated signaling to the thymus.

Claim 32. (Previously Presented): The method of claim 29, further comprising administering cells to the patient, wherein the cells are stem cells, progenitor cells, dendritic cells, or combinations thereof.

Claim 33. (Previously Presented): The method of claim 32, wherein the stem cells are selected from the group consisting of hematopoietic stem cells, epithelial stem cells, and combinations thereof.

Claim 34. (Withdrawn): The method of claim 32, wherein the progenitor cells are selected from the group consisting of lymphoid progenitor cells, myeloid progenitor cells, and combinations thereof.

Claim 35. (Cancelled)

Claim 36. (Previously Presented): The method of claim 33, wherein the cells are hematopoietic stem cells.

Claim 37. (Previously Presented): The method of claim 36, wherein the hematopoietic stem cells are $CD34^+$.

Claim 38. (Previously Presented): The method of claim 32, wherein the cells are autologous.

Claim 39. (Previously Presented): The method of claim 32, wherein the cells are not autologous.

Claim 40. (Previously Presented): The method of claim 32, wherein the cells are administered when the thymus begins to reactivate.

Claim 41. (Previously Presented): The method of claim 31, further comprising administering cells to the patient, wherein the cells are stem cells, progenitor cells, dendritic cells or combinations thereof.

Claim 42. (Previously Presented): The method of claim 41, wherein the stem cells are selected from the group consisting of hematopoietic stem cells, epithelial stem cells, and combinations thereof.

Claim 43. (Withdrawn): The method of claim 41, wherein the progenitor cells are selected from the group consisting of lymphoid progenitor cells, myeloid progenitor cells, and combinations thereof.

Claim 44. (Cancelled)

Claim 45. (Previously Presented): The method of claim 42, wherein the cells are hematopoietic stem cells.

Claim 46. (Withdrawn): The method of claim 31, wherein the sex steroid-mediated signaling to the thymus is disrupted by surgical castration.

Claim 47. (Previously Presented): The method of claim 31, wherein the sex steroid-mediated signaling to the thymus is disrupted by chemical castration.

Claim 48. (Previously Presented): The method of claim 31, wherein the sex steroid-mediated signaling to the thymus is disrupted by administration of a pharmaceutical.

Claim 49. (Previously Presented): The method of claim 48, wherein the pharmaceutical is selected from the group consisting of LHRH agonists, LHRH antagonists, anti-LHRH vaccines, anti-androgens, anti-estrogens, SERMs, SARMs, SPRMs, ERDs, aromatase inhibitors, anti-progestogens, Dioxalan derivatives, and combinations thereof.

Claim 50. (Previously Presented): The method of claim 49, wherein the LHRH agonists are selected from the group consisting of Goserelin, Leuprolide, Lupron, Triptorelin, Meterelin, Buserelin, Histrelin, Nafarelin, Lutrelin, Leuprorelin, Deslorelin, Cystorelin, Decapeptyl, Gonadorelin, and combinations thereof.

Claim 51. (Withdrawn): The method of claim 49, wherein the LHRH antagonists are selected from the group consisting of Abarelix, Cetrorelix, and combinations thereof.

Claim 52. (Cancelled)

Claim 53. (Withdrawn): A method for treating or preventing an allergy in a patient, comprising:

depleting T cells in the patient; and

reactivating a thymus of the patient,

wherein the treated patient has an improved prognosis compared to an untreated patient.

Claim 54. (Withdrawn): The method of claim 53, wherein the thymus of the patient has been at least in part atrophied before it is reactivated.

Claim 55. (Withdrawn): The method of claim 54, wherein the thymus is reactivated by disruption of sex steroid-mediated signaling to the thymus.

Claim 56. (Withdrawn): The method of claim 53, wherein the patient is post-pubertal.

Claim 57. (Withdrawn): The method of claim 53, further comprising administering cells to the patient, wherein the cells are stem cells, progenitor cells, dendritic cells or combinations thereof.

Claim 58. (Withdrawn): The method of claim 57, wherein the stem cells are selected from the group consisting of hematopoietic stem cells, epithelial stem cells, and combinations thereof.

Claim 59. (Withdrawn): The method of claim 57, wherein the progenitor cells are selected from the group consisting of lymphoid progenitor cells, myeloid progenitor cells, and combinations thereof.

Claim 60. (Cancelled)

Claim 61. (Withdrawn): The method of claim 58, wherein the cells are hematopoietic stem cells.

Claim 62. (Withdrawn): The method of claim 61, wherein the hematopoietic stem cells are $CD34^+$.

Claim 63. (Withdrawn): The method of claim 57, wherein the cells are autologous.

Claim 64. (Withdrawn): The method of claim 57, wherein the cells are not autologous.

Claim 65. (Withdrawn): The method of claim 57, wherein the cells are administered when the thymus begins to reactivate.

Claim 66. (Withdrawn): The method of claim 55, further comprising administering cells to the patient, wherein the cells are stem cells, progenitor cells, dendritic cells or combinations thereof.

Claim 67. (Withdrawn): The method of claim 66, wherein the stem cells are selected from the group consisting of hematopoietic stem cells, epithelial stem cells, and combinations thereof.

Claim 68. (Withdrawn): The method of claim 66, wherein the progenitor cells are selected from the group consisting of lymphoid progenitor cells, myeloid progenitor cells, and combinations thereof.

Claim 69. (Cancelled)

Claim 70. (Withdrawn): The method of claim 67, wherein the cells are hematopoietic stem cells.

Claim 71. (Withdrawn): The method of claim 66, wherein the cells are administered when the thymus begins to reactivate.

Claim 72. (Withdrawn): The method of claim 66, wherein the cells are administered at the time disruption of sex steroid-mediated signaling to the thymus is begun.

Claim 73. (Withdrawn): The method of claim 55, wherein the sex steroid-mediated signaling to the thymus is disrupted by surgical castration.

Claim 74. (Withdrawn): The method of claim 55, wherein the sex steroid-mediated signaling to the thymus is disrupted by chemical castration.

Claim 75. (Withdrawn): The method of claim 55, wherein the sex steroid-mediated signaling to the thymus is disrupted by administration of a pharmaceutical.

Claim 76. (Withdrawn): The method of claim 75, wherein the pharmaceutical is selected from the group consisting of LHRH agonists, LHRH antagonists, anti-LHRH vaccines, anti-androgens, anti-estrogens, SERMs, SARMs, SPRMs, ERDs, aromatase inhibitors, anti-progestogens, Dioxalan derivatives, and combinations thereof.

Claim 77. (Withdrawn): The method of claim 76, wherein the LHRH agonists are selected from the group consisting of Goserelin, Leuprolide, Lupron, Triptorelin, Meterelin, Buserelin, Histrelin, Nafarelin, Lutrelin, Leuprorelin, Deslorelin, Cystorelin, Decapeptyl, Gonadorelin, and combinations thereof.

Claim 78. (Withdrawn): The method of claim 76, wherein the LHRH antagonists are selected from the group consisting of Abarelix, Cetrorelix, and combinations thereof.

Claim 79. (Cancelled)

Claim 80. (Previously Presented): The method of claim 29, further comprising administering a cytokine, a growth factor, or a combination of a cytokine and a growth factor to the patient.

Claim 81. (Previously Presented): The method of claim 80, wherein the cytokine is selected from the group consisting of Interleukin 2 (IL-2), Interleukin 7 (IL-7), Interleukin 15 (IL-15), and combinations thereof.

Claim 82. (Previously Presented): The method of claim 80, wherein the growth factor is selected from the group consisting of a member of the epithelial growth factor family, a member of the fibroblast growth factor family, stem cell factor, granulocyte colony stimulating factor (G-CSF), keratinocyte growth factor (KGF), insulin-like growth factor, a growth hormone, a thyroid hormone, and combinations thereof.

Claim 83. (Cancelled)

Claim 84. (Withdrawn): The method of claim 53, further comprising administering a cytokine, a growth factor, or a combination of a cytokine and a growth factor to the patient.

Claim 85. (Withdrawn): The method of claim 84, wherein the cytokine is selected from the group consisting of Interleukin 2 (IL-2), Interleukin 7 (IL-7), Interleukin 15 (IL-15), and combinations thereof.

Claim 86. (Withdrawn): The method of claim 84, wherein the growth factor is selected from the group consisting of a member of the epithelial growth factor family, a member of the fibroblast growth factor family, stem cell factor, granulocyte colony stimulating factor (G-CSF), keratinocyte growth factor (KGF), insulin-like growth factor, a growth hormone, a thyroid hormone, and combinations thereof.

Claims 87-90. (Cancelled)

Claim 91. (Withdrawn): A method for increasing virus-specific peripheral T cell responsiveness of a patient with an at least partially atrophied thymus, comprising:

reactivating the thymus of the patient;

exposing the patient to a virus; and

determining the virus-specific peripheral T cell responsiveness in the patient,

wherein the patient has an increased viral-specific peripheral T cell responsiveness as compared to the responsiveness that would have otherwise occurred in a patient prior to thymus reactivation.

Claim 92. (Previously Presented): The method of claim 29, wherein the patient is post-pubertal.

Claim 93. (Previously Presented): The method of claims 38 or 63, wherein the autologous cells are genetically modified.

Claim 94. (Previously Presented): The method of claim 31 or 55, wherein the sex-steroid mediated signaling to the thymus is disrupted by lowering the level of a sex steroid hormone.

Claim 95. (Previously Presented): The method of claim 29, wherein the patient is immunosuppressed.

Claim 96. (Previously Presented): The method of claim 31, wherein the T cell depletion and disruption of sex-steroid-mediated signaling are begun at the same time.

Claim 97. (Previously Presented): The method of claim 31, wherein the T cells are depleted before administration of cells from the mismatched donor to the patient.

Claim 98. (Previously Presented): The method of claim 31, wherein the disruption of sex-steroid mediated signaling is begun before T cell depletion and administration of cells.

Claim 99. (Currently Amended): A method for treating or alleviating symptoms of an autoimmune disease in a patient having or suffering an autoimmune disease, comprising reactivating the thymus of the patient, wherein the patient has an improved prognosis for the autoimmune disease compared to an untreated patient suffering from the autoimmune disease.

Claim 100. (Currently Amended): A method for treating or alleviating symptoms of an autoimmune disease in a patient having or suffering an autoimmune disease, comprising:

providing the patient with immunosuppressive therapy; and

reactivating the thymus of the patient,

wherein the patient has an improved prognosis for the autoimmune disease compared to an untreated patient suffering from the autoimmune disease.

Claim 101. (Withdrawn): The method of claim 49 or 76, wherein the anti-androgen is Eulexin or ketoconazole.

Claim 102. (Canceled)

Claim 103. (Currently Amended): A method for reducing the risk of developing an autoimmune disease in a patient at risk of having or suffering an autoimmune disease, comprising:

depleting T cells in the patient; and

reactivating the thymus of the patient,

wherein the patient has a reduced risk of developing the autoimmune disease compared to an untreated patient at risk of having or suffering from [[an]] the autoimmune disease.